UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,897	06/04/2004	John C. Wang	12022-US-PA	3896

31561 7590 01/31/2006

JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE
7 FLOOR-1, NO. 100
ROOSEVELT ROAD, SECTION 2
TAIPEI, 100
TAIWAN

EXAMINER	
BROUSSARD, COREY M	
ART UNIT	**PAPER NUMBER**
2835	

DATE MAILED: 01/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

3/L

Office Action Summary	Application No.	Applicant(s)	
	10/709,897	WANG, JOHN C.	
	Examiner	Art Unit	
	Corey M. Broussard	2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 October 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 June 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *8/04/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the device forming a cross-shaped configuration when at the second position where the pivot connection is not on the two geometric center lines as recited in claim 17 must be shown or the feature canceled from the claim. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> **The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.**

3. Claim 17 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. The specification lacks a proper explanation of how the device can have a cross-shape at the second position when the pivot connection is not located on either of the two geometric centerlines.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> **The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.**

5. Claims 26, 28, and 30-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. With respect to claims 26, 28, and 30, the claims relate “a direction” as being 45 degrees from another “direction” of an imaginary “line”. It is unclear how to define “a direction” of a line as used in said claims. One of skill in the art would be unable to determine the scope of the invention claimed.

6. With respect to claim 31, the word height is used to limit the points claimed, but no reference is given in which to measure the height from. If the height can be taken

from any arbitrary reference then any two points can have different heights. Also the word "slant" requires a reference since the different between a slanted line and a straight line depends on the relation to a common reference. Without stating a reference in the claim one of skill in the art is unable to determine the scope of the invention.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 2, 11-16, 18, 19, 23-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Mäkelä (PN 6,813,143). With respect to claim 1, Mäkelä teaches a body (106) having a display (108), having a first geometric center line in a first direction and a second geometric center line in a second direction; and a sliding member (102) pivotally connecting to a bottom of the first body via a pivot connection (130), wherein the pivot connection is not on the two geometric center lines, the sliding member has a keyboard (104), the sliding member moves between a first position and a second position relative to the body, where at the first position (Fig. 2), the keyboard of the sliding member has at least a portion being hidden below the body, and where at the second position (Fig. 3), ends of the sliding member protrude out of lateral side of the body, respectively.

9. With respect to claim 2, Mäkelä teaches wherein the sliding member (102) rotates from the first position by 90 degrees to the second position (see Fig. 2, 3, col 2, 55-56).

10. With respect to claim 11, Mäkelä teaches wherein at the first position, the keyboard on the sliding member (102) has some keys which are exposed under the display (col 3, 8-11).

11. With respect to claim 12, Mäkelä teaches wherein the body (106) has operating buttons (148, 150) under the display (108), and at the first position, the operating buttons are located between the exposed keys (140, 142, 144, 146) of the keyboard of the sliding member and the display (see Fig. 2).

12. With respect to claim 13, Mäkelä teaches wherein the body (106) is integrally formed with a base (the body must inherently have a base supporting it), and the sliding member (102) is supported by the base (see Fig. 2, 3, the base supporting the body must also support the sliding member).

13. With respect to claim 14, Mäkelä teaches wherein the body (106) further comprises a plurality of keys (148, 150) under the display (108), and at the second position, the keys on the body cooperate with the keyboard (104) of the sliding member (102) to form a Qwerty keyboard (see Fig. 3, col 3, 4-7).

14. With respect to claim 15, Mäkelä teaches a body (106) having a first geometric center line in a first direction and a second geometric center line in a second direction; the sliding member (102) pivotally connected to the body at a pivot connection (130) position not on the two geometric center lines, the sliding member having a keyboard

(104) thereon, and movable between a first position (Fig. 2) and a second position (Fig. 3), wherein at the second position, the sliding member having two ends protruding out of two side of the body (see Fig. 3), respectively.

15. With respect to claim 16, Mäkelä teaches wherein at the second position (Fig. 3), the handheld electronic device has a T-shaped configuration (see Fig. 3).

16. With respect to claim 18, Mäkelä teaches a body (106) having a display (108) thereon, wherein the body has a first geometric center line in a first direction and a second geometric center line in a second direction; a sliding member (102) pivotally mounted to the body at a pivot connection position (130) not on the two geometric center lines and moveable between first (Fig. 2) and second (Fig. 3) positions, at the first position, the sliding member being aligned with the body, at the second position, the sliding member having two ends located outside of the two sides of the body, respectively (see Fig. 3).

17. With respect to claim 19, Mäkelä teaches wherein the sliding member (102) rotates from the first position by 90 degrees to the second position (see Fig. 2, 3, col 2, 55-56).

18. With respect to claim 23, Mäkelä teaches wherein the sliding member (102) is provided with a keyboard (104) thereon.

19. With respect to claim 24, Mäkelä teaches wherein the sliding member (102) is provided with a touch pad (104 is a touch activated user interface that is fairly classified as a touch pad. Alternatively, touch sensitive pads used to control a cursor in two dimensions in computing devices are well known in the electronic art) thereon.

20. With respect to claims 25, 27, and 29, Mäkelä teaches wherein the first geometric center line is perpendicular to the second geometric center line (the body is rectangular and therefore would inherently have 2 geometric center lines that are perpendicular).

21. With respect to claims 26, 28, and 30 as best as they can be understood, Mäkelä teaches wherein a direction from the pivot connection to the intersection point of the first geometric center line and the second geometric center line is 45 degrees from the first direction of the first geometric center line (see Fig. 2, 3).

22. With respect to claim 30 as best as it can be understood, Mäkelä teaches a body (102), having a geometric center point and a side point at one side periphery, wherein the side point and the geometric center point are not at the same height and form a slanted line (see Fig. 3); a sliding member (106) pivotally connected to the body, wherein a pivot connection position (130) is on the slanted line but not on the geometric center point, the sliding member is movable between a first position and a second position, wherein at the second position, the sliding member having two ends protruding out of two sides of the body (Fig. 3), respectively.

23. With respect to claim 32 as best as it can be understood, Mäkelä teaches wherein the slant line is slanted by 45 degrees from a geometric center line of the body (see Fig. 3).

Claim Rejections - 35 USC § 103

24. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

25. Claims 3-8, 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mäkelä (PN 6,813,143) in view of Horiki (US Pub 2002/0109965). With respect to claim 3, Mäkelä teaches the device as applied to claim 2 above, but lacks specific teaching of a separate guiding structure. Horiki teaches a mobile device having a guiding structure (7) to guide the sliding member moving between the first position and the second position (see [0038], [0041], and Fig. 5A). It would have been obvious to a person of ordinary skill in the electronic art to combine the mobile device of Mäkelä with the device of Horiki for the benefit of a mobile device with a guide groove for a smooth transition between multiple operating states and stable retention in each state.

26. With respect to claim 4, Horiki teaches wherein the guiding structure (7) comprises an engaging member (8) and an arched track (9) wherein the engaging member is movably fitted in the track (see [0041] and Fig. 5A, 5B).

27. With respect to claim 5, Mäkelä teaches the device as applied to claim 1 but lacks specific teaching of wherein the sliding member is rotated 180 degrees. Mäkelä does teach that devices were the sliding member rotates 180 degrees is known (see Fig. 1, col 1, 13-55). Horiki teaches a device similar to Mäkelä and also suggest rotating angles other than 90 degrees ([0039], lines 6-7). It would have been obvious to

a person of ordinary skill in the electronic art to modify the device of Mäkelä using the suggestion of Horiki that any rotational angle can be used and the prior art teaching of a 180 degree rotational angle for the benefit of a mobile device able to also operate as a mobile phone when rotated 180 degrees.

28. With respect to claim 6, Horiki teaches a guiding structure (7) to guide the sliding member moving between the first position and the second position (see [0038], [0041], and Fig. 5A).

29. With respect to claim 7, Horiki teaches wherein the guiding structure comprises an engaging member (8) on the sliding member, the engage member movably fitting in an arched track (9) defined in the bottom of the body (see [0041] and Fig. 5A, 5B).

30. With respect to claim 8, when the device of Horiki is modified to utilize a 180 degree rotating angle as stated in claim 5 above, the arched track (9) would inherently form a semicircle (see Fig. 5A clearly illustrating a 90 degree quarter circle).

31. With respect to claim 20, Mäkelä teaches the device as applied to claim 19 above, but lacks specific teaching of a separate guiding structure. Horiki teaches a guiding means (7) for guiding the sliding member to have a reliable and stable movement between the first and second positions (see [0038], [0041], and Fig. 5A). It would have been obvious to a person of ordinary skill in the electronic art to combine the mobile device of Mäkelä with the device of Horiki for the benefit of a mobile device with a guide groove for a smooth transition between multiple operating states and stable retention in each state.

32. With respect to claim 21, Mäkelä teaches the device as applied to claim 18 but lacks specific teaching of wherein the sliding member is rotated 180 degrees. Mäkelä does teach that devices were the sliding member rotates 180 degrees is known (see Fig. 1, col 1, 13-55). Horiki teaches a device similar to Mäkelä and also suggest rotating angles other than 90 degrees ([0039], lines 6-7). It would have been obvious to a person of ordinary skill in the electronic art to modify the device of Mäkelä using the suggestion of Horiki that any rotational angle can be used and the prior art teaching of a 180 degree rotational angle for the benefit of a mobile device able to also operate as a mobile phone when rotated 180 degrees.

33. With respect to claim 22, Horiki teaches a guiding means (7) for guiding the sliding member to have a reliable and stable movement between the first and second positions (see [0038], [0041], and Fig. 5A).

34. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mäkelä (PN 6,813,143) in view of Lahr (Us Pub 2003/0132863). Mäkelä teaches the device as applied to claim 1 above, but lacks specific teaching of both linear and rotatable motion of the sliding member. Lahr teaches wherein the sliding member is moved from the first position to the second position through linear and rotatable means relative to the body ([0025], lines 11-12), either means could precede the other. It would have been obvious to a person of ordinary skill in the electronic art to combine the teaching of a hub and channel guide system of Lahr with the mobile device of Mäkelä for the benefit of a mobile device with a sliding user interface allowing for multiple selectable configurations for greater ease of use.

Response to Arguments

35. Applicant's arguments with respect to claims 1-32 have been considered but are moot in view of the new grounds of rejection.

Conclusion

36. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ma et al. (US Pub 2004/0121825) and Duarte (PN 6,829,139) demonstrating alternative sliding mobile device designs.

37. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corey M. Broussard whose telephone number is 571 272 2799. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on 571 272 2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CMB
cmb

LYNN FEILD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800